

REMARKS:

Claims **1-45** were examined.

CLAIM REJECTIONS:

Double Patenting

In response to the nonstatutory obviousness-type double patenting rejection, Applicant submits herewith a terminal disclaimer regarding co-pending application No. 10/771,250. Accordingly, this rejection is now moot.

35 USC 103

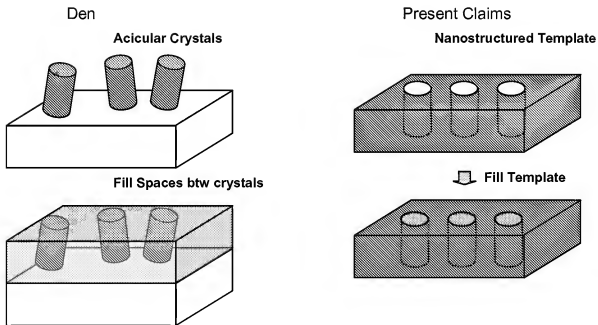
CLAIMS 1 THROUGH 64 ARE ALLOWABLE OVER DEN AND NAKAMURA

Claims **1-45** were rejected under 35 USC 103(a) over EP reference EP 1,087,446 to Den et al. (hereinafter Den) in view of U.S. Patent No. 6,291,763 to Nakamura (hereinafter Nakamura). This rejection is traversed.

Claim 1 recites a nanostructured **template made from an n-type first charge transfer-material**. Applicant refers the Office to Figure 1B showing one example of the template of the presently claimed invention. Den, on the other hand, shows an aggregate of separate, discrete acicular crystals (see paragraph 0023 of Den). The Applicants submit that such an aggregate of acicular crystals does not and cannot form a template as recited in the present claims. The Merriam-Webster online dictionary defines “template” inter alia to mean “a gauge, pattern, or mold” (see <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=template>). Similarly, The American Heritage® Dictionary of the English Language: Fourth Edition 2000 defines “template” to mean, inter alia “A pattern or gauge, such as a thin metal plate with a cut pattern, used as a guide in making something accurately, as in woodworking or the carving of architectural profiles” (see <http://www.bartleby.com/61/88/T0098800.html>). The Applicants submit that by this definition a template would have interconnected solid material with openings in the solid material. In short, a template is at least theoretically capable of holding itself together independent of an underlying substrate or material embedded in the openings of the template. The acicular crystal layer of Den, by contrast is merely an aggregate of crystals grown through a layer of porous alumina (see paragraph 54 of Den). **There is no N-type interconnected solid material with openings in the solid material in Den.**

The Office appears to suggest that the porous alumina layer of Den is somehow the template (page 17 of the Office Action dated 2/28/08). However, as claim 1 clearly recites that template comprise of an N-type material, the insulating porous alumina material cannot be the template. **The definition of a template is such that Den does not show such a structure (interconnected solid material with openings in the solid material) formed from an N-type material.**

Applicants submit that the acicular crystals of Den do not correspond to the nanostructured template presently claimed. Applicants also submit that the porous alumina layer does not correspond to the template. To illustrate the distinction between the present claims and Den, the Applicants submit the following drawing:



Furthermore, claim 1 recites that the second charge-transfer material is conformally coating one or more walls of the template elements. The Office states on page 4 of the Office action that the second transfer material of claim 1 is shown by layer 12 in Den and that the third material of claim 1 is shown by layer 16 in Den. However, the section of text cited by the Office in Den (Co. 7, lines 49-52) states that layer 16 is **between** the other charge transfer layer (acicular crystal 17) and the other transfer layer 12. Given that specific structure in Den, it is not

possible for layer 12 of Den (which the Office states is corresponding to the second material of claim 1) to coat the walls of the nanostructured template. **On the contrary, layer 12 coats the layer 16 in Den and does not coat a wall or surface of any nanostructured template (which Den does not have) or any acicular crystal 17.** Den shows that layer 16 is a light absorption layer and that layer coats the acicular crystals 17. Layer 16, however, is not described or suggested as a p-type material as recited in claim 1. Nakamura does not rectify the deficiencies of Den.

Accordingly, neither Den or Nakamura show or suggest the second charge transfer material recited in Claim 1, and the Applicants respectfully request that the rejection of Claim 1 be withdrawn. Claims 2-31 are allowable as they depend from an allowable base claim and are also novel in their own right.

Independent claim 32 is also allowable for substantially the same reasons as set forth for claim 1. Claim 32 recites a p-type material coating on one or more walls of the template elements in a way that leaves additional space. The layer 16 of Den which separates layer 12 from the acicular crystals 17 is not described as a p-type semiconductor material. Layer 16 is merely a light absorbing layer. Nakamura does not rectify the deficiencies of Den. Accordingly, neither Den or Nakamura show or suggest the second charge transfer material recited in Claim 32 and the Applicants respectfully request that the rejection of Claim 32 be withdrawn.

Independent claim 33 is allowable for substantially the same reasons as set forth for claim 1. Claim 33 recites a method with a method step of coating one or more walls of the template elements with a second charge-transfer material in a way that leaves additional space, wherein the second charge-transfer material has complementary charge-transfer properties with respect to the first charge-transfer material. Again, Den does not have such a layer. The layer 16 of Den that coats its acicular crystal is not a second charge-transfer material that has complementary charge-transfer properties with respect to the first charge-transfer material. Layer 16 is a light absorption material and devoid of any teaching in Den that is has a complementary charge-transfer properties with respect to the first charge-transfer material. Nakamura does not rectify the deficiencies of Den. Accordingly, neither Den or Nakamura show or suggest the second charge transfer material recited in Claim 33 and the Applicants respectfully request that the rejection of Claim 33 be withdrawn. Claims 34-45 are allowable as they depend from an allowable base claim and are also novel in their own right.

CONCLUSION:

For the reasons set forth above, the Applicants submit that all claims are allowable over the cited art and define an invention suitable for patent protection. The Applicants therefore respectfully request that the Office enter the amendment, reconsider the application, and issue a Notice of Allowance in the next Office Action.

Respectfully submitted,

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